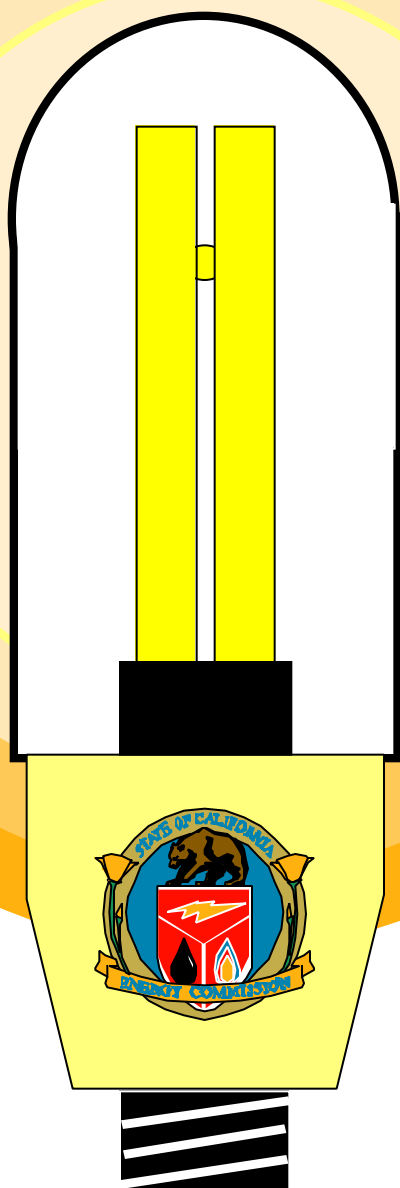


ENERGY EDUCATION RESOURCES



CALIFORNIA ENERGY COMMISSION

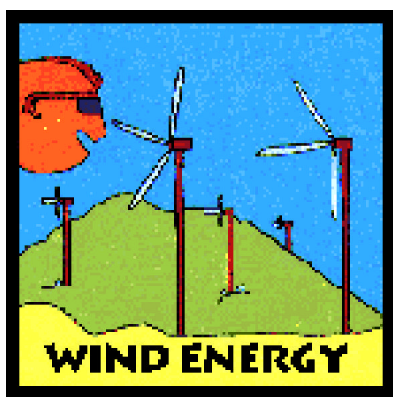
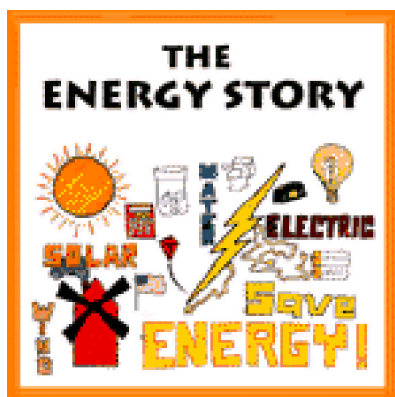
Instructing California's youth in how to use energy wisely and efficiently is an important job for all educators and parents. This pamphlet was created by the California Energy Commission as a concise guide to some of the energy educational source material and energy industry contacts.

Since energy and the environment are inseparable, you may also wish to investigate other "related" fields by contacting scientific, environmental, recycling and conservation organizations.



ENERGY COMMISSION

The California Energy Commission is the state's principal energy policy and planning agency. As part of its information campaign, the Commission produces educational material to increase student awareness of energy resources, how energy gets to consumers, and ways to conserve and use energy efficiently. All education items from the Commission are available free of charge by contacting the Publications Office at (916) 654-5200, or writing to: California Energy Commission, Publications Office, 1516 Ninth Street, Sacramento, CA 95814. Please give the publication number to speed ordering. The Commission also maintains a Home Page on the Internet and makes material available there.



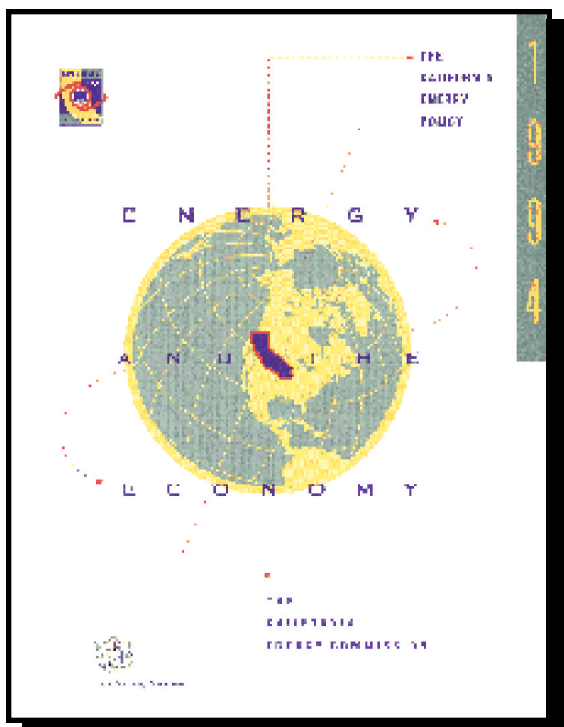
Annual Energy Poster Contest — Grades: K-6. Each year, the Energy Commission sponsors a poster contest for children in kindergarten through sixth grades. In the past, the contest was held in September. This, however, did not allow teachers who were just returning to school to add energy education materials into their curriculum. So, the dates have been changed, and the contest will coincide with National Energy Education Day or Earth Day week. Winning artists will be chosen and honored before the end of the school year. The poster calendar with the winning artists' drawings will then be available during National Energy Awareness Month — the following October. In 1995, however, no poster is being created because of funding cut-backs in state government. We are soliciting corporate underwriting and hope to reinstate the contest and calendar in 1996. **STAY TUNED!**

ENERGY COMMISSION

Energy Excitement Activities Sheet (Volume 3) — Grades: 3-6. Through games, fill-in-the-blanks, drawings and puzzles, students learn energy basics and conservation tips. Order: Volume 3, publication number P180-96-001. **AVAILABLE IN EARLY 1996!**

Biennial Report — Grades: 9-12. Published every two years, the *Biennial Report* to the Governor and the Legislature is the state's plan for assuring California's energy future. Teachers may wish to use the report as supplemental text for government, science or economics courses. Order: *Biennial Report*.

1994 Biennial Report



CALIFORNIA UTILITIES

Most utility companies have a variety of energy education materials. Some utilities can also provide speakers for classrooms, films, video tapes and guided field trips of power plants and other energy facilities. Contact your local utility company's educational services or public affairs office. Below is a sample of the programs offered by California's major utility companies.

Los Angeles Department of Water and Power — LADWP works with the Los Angeles Unified School to develop energy education materials and curriculum and support efforts of the L.A. Educational Partnership. They supply materials for teachers and schools only within their service area. Call the Educational Services Office of LADWP's Public Affairs Division at (213) 367-1343, FAX (213) 367-1434, or write them at P.O. Box 111, Room 1514, Los Angeles, CA 90051.

Pacific Gas and Electric Company — PG&E has the "Energenius Education Series" which teaches energy efficient and safe use of gas and electricity through hands-on active learning in the classroom. Each program in the series comes complete with step-by-step teacher's curriculum, along with materials for each student. Programs are for grade levels 1-8.

All these programs, along with others in development, relate to the Science and History-Social Science Framework and promote skills found in the English/Language Arts and the Visual/Performance Arts Framework.

For more information, contact: PG&E's Smarter Energy Line, toll free, at (800) 933-9555, and ask about the "Energenius Education series."

CALIFORNIA UTILITIES

Pasadena Water and Power Department — PWP provides water and energy education programs and materials for Pasadena schools at all grade levels, K-12. Staff development workshops and classroom presenters are also available. Contact: Education Services Director, Pasadena Water and Power Dept., 150 S. Los Robles, Suite 200, Pasadena, CA 91101 or call (818) 405-4699.

Sacramento Municipal Utility District — SMUD offers a comprehensive energy education program for service area customers. Write: SMUD Educational Services, P.O. Box 15830, Sacramento, CA 95852-1830, or call (916) 732-5130.

San Diego Gas and Electric Company — SDG&E offers classroom presentations to schools and various groups. Educators should contact the Community Affairs Office, SDG&E, P.O. Box 1831, San Diego, CA 92112, (619) 696-4291.

Southern California Edison — SCE offers services to educators and schools on such topics as electrical safety, family involvement in schools and electric vehicles. Scholarships for 147 students and teacher grants for up to \$5,000 are awarded annually. For eligibility requirements or more information, contact Education Services, Southern California Edison, 1190 Durfee Ave., Suite 200, South El Monte, CA 91733, or call, toll free, at (800) 456-1044.

Calif. Energy Extension Service

The California Energy Extension Service was an agency within the Governor's Office of Planning and Research. Because of the cuts in federal funding, the Service has gone out of existence. Some of its materials are now being made available on the Internet by the California Energy Commission.

Classroom Energy Poster Puzzle — Grades: K-4. Developed in Alberta, Canada, this bulletin board-size poster is a great classroom teaching aid to focus on energy use and abuse. **Available on the Commission's Internet Site.**

Conserve and Renew: Energy Activities — Grades 4-6. A collection of interdisciplinary energy activities to be used either as a unit on energy or as individual activities to complement existing curricula. While the main focus is on energy conservation and renewables, recycling and ethics are also included. Available from Energy Center, Sonoma State University, 1801 East Cotati Avenue, Rohnert Park, CA 94928, (707) 664-2577. Cost \$10.00.

Energy Patrol — Grades: 4-6. A step-by-step guide to actively involve students in reducing their school's energy consumption. A companion video is also available. **Available on the Commission's Internet Site.**

Let's Get Energized — Grades: K-6. A Collection of 36 energy education and awareness activities designed for after-school enrichment/child care programs. **COMING SOON TO THE ENERGY COMMISSION'S INTERNET SITE.**

4-H Home Conservation Guide — Grades: 5-12. A collection of 12 hands-on projects that teach home energy conservation skills for a 4-H group. **Available on the Internet.**



**California
Department of
Conservation**

Division of Recycling

DIVISION of RECYCLING

Why should we recycle? What does it have to do with energy? Recycling saves energy. It can also reduce air pollution, conserve natural resources, and cut down on landfill. Here are some 'vital statistics' about recycling:

- Recycling aluminum use 95 percent less energy than producing aluminum from raw materials.
- Recycling paper uses 60 percent less energy than manufacturing paper from virgin timber.
- Recycling a glass jar saves enough energy to light a 100 watt light bulb for four hours.
- The Sunday edition of the *New York Times* uses 75,000 trees each week, yet only 30 percent of newspapers are recycled in the United States.
- The average American throws away four pounds of garbage each day. By recycling, the waste sent to landfills can be reduced by as much as 80 percent.

The California Department of Conservation, Division of Recycling the state source for recycling resources, including:

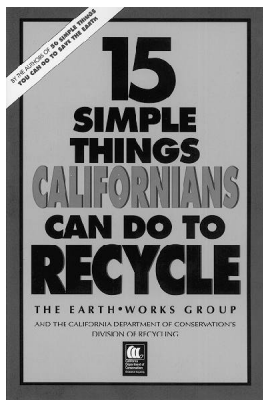
- Yearly Education Package (while supplies last)
- Resource Center
- Recycling Grants
- Recycle Rex™ Stage Show and Assembly Program
- Recycle Rex™ RecyCool Club
- 1-800-RECYCLE
- Recycle Rex's™ Color Full Activity Book
- InfoCycle, DOC's computer Bulletin Board Service

Contact the Department of Conservation, 801 K Street, MS 22-57, Sacramento, CA 95814, or call, toll-free, 1-800-323-3508 or 916-322-0952.

Description of Resources

Yearly Education Package

While supplies last, this package includes K-12 recycling activities, with Spanish translations of the elementary lessons; lists of videos, periodicals and other recycling curricula; lists of environmental organizations and city/county recycling coordinators; recycling trivia and fun facts; the book *50 Simple Things Kids Can Do to Recycle*; and a colorful poster of Recycle Rex™ and his friends.



The Resource Center

The Resource Center is a source of videos, books and periodicals covering all aspects of recycling and conservation. The Recycle Rex™ video, in English and Spanish, and other resource materials are available on loan to educators. For a free catalog call: (916) 445-1490.

Recycling Grants

Recycling Grants are available to governmental agencies (including public Schools) and nonprofit organizations. Eligible activities include recycle collection, community outreach, education, litter reduction and market development. Applications are accepted continuously. For more information call (916) 322-0957.

Recycle Rex's™ Stage Show and Assembly Program, RecyCool Club, and Color Full Activity Book

Recycle Rex™, California's Spokesdinosaur on Conservation, appears at large vents and fairs across the state and is available on a limited basis for school assembly programs. Rex sponsors a club that, through contests, information and a regular newsletter, gives kids a chance to learn about recycling in a fun and exciting way. A Color Full Activity Book filled with games and puzzles help reinforce recycling concepts. For copies or information call (916) 322-0952.

1-800-RECYCLE

DOC'S toll free recycling hotline can help you locate recycling centers, order publications or help you with other info about the Department's programs. Operators are available, Monday to Friday, from 8 a.m. to 5 p.m. by calling 1-800-RECYCLE.

THINK EARTH

Suppose all of the children in your community began to:

- Recycle papers, bottles and can
- Dispose of wastes properly
- Walk, bike or carpool whenever possible
- Use electricity, water, natural gas, paper and other resources wisely



Students in your community can learn these and other responsible environmental behaviors with the Think *Earth* Environmental Education Program. By providing *Think Earth* to schools in your area, you can show your commitment to the community, to education and to the environment, while also teaching a lot of kids and their families to “think earth.”

Think Earth is a comprehensive environmental education program for children in kindergarten through grade 6. The program addresses all elements of the environment — air, land, water and energy. Students learn the importance of a clean, healthy environment and learn what they can do to conserve natural resources, reduce waste and minimize pollution.

An instructional unit is provided for each grade level of the *Think Earth* program. Each unit interrelates all elements of the environment, while emphasizing a specific theme.

For ordering and other information, write or call Education Development Specialists, 5505 East Carson Street, Suite 250, Lakewood, CA 90713, Phone (310) 420-6814, FAX (310) 420-1485.

Development sponsors of the program include ARCO, California Energy Commission, City of Los Angeles Clean Water Program, Educational Development Specialists, Los Angeles Department of Water and Power, Metropolitan Water District of Southern California, Orange County Sanitation Districts, Regional Inter-utility Network, Sanitation Districts of Los Angeles County, South Coast Air Quality Management District, Southern California Edison Company, Southern California Gas Company, Ventura County Air Pollution Control District, Ventura Regional Sanitation District and other groups.

OTHER RESOURCES

In addition to the listings provided, there are many other groups that have energy and environmental education material available. You may wish to contact the following groups or organizations. Also check the "yellow pages" for environmental or energy organizations. Only California or toll-free phone numbers are included in this section.

Those who teach about energy are especially encouraged to contact the California Energy Education Forum (CEEF), an organization of teachers, parents and others interested in energy education.

California Energy Educators Forum (CEEF)

c/o Ms. Gwen Walker
California Energy Commission
1516 Ninth Street, MS-31
(916) 654-5000

CEEF was created in 1976 as an impartial organization of educators, government representatives, environmentalists, energy industry experts and producers of educational materials.

It has one common concern: **That students understand the current energy situation and the need for wise use of energy.**

CEEF offers educators a neutral forum to discuss and develop energy education material and share information. It neither endorses energy education products nor advocates a particular viewpoint.

Alliance to Save Energy

1725 K Street, N.W., Suite #509
Washington, DC 20006-1401
(202) 857-0666

A nonprofit coalition of business, government, environmental and consumer leaders dedicated to efficient use of energy resources.

American Coal Foundation

1130 17th Street, N.W., Suite 220
Washington, DC 20006-4604

Lobbying and education arm of the coal industry, it offers various age levels a variety of free booklets and information about fossil fuels.

American Gas Association

1515 Wilson Blvd.
Arlington, VA 2209

The *Natural Gas Education Kit* has detailed background information on natural gas — including two comic books, a book of science experiments and demonstrations, and a poster.

American Nuclear Society

555 North Kensington Ave.
LaGrange Park, IL 60525

This nuclear industry association offers a free publications on nuclear energy and uses of the atom, science and social studies curricula for grades K-12.

American Petroleum Institute

1220 L Street, N.W.
Washington, DC 20005

Supplies educational materials on the petroleum industry.

American Public Power Association

2301 M St., N.W., Suite 300
Washington, DC 20037

This service organization for publicly-owned electric utility companies has information, videos and publications about electricity production.

American Solar Energy Society

2400 Central Ave.
Suite G-1

Boulder, CO 80301

The national association for solar industry provides information about use of solar power.

American Wind Energy Association

122 C Street, N.W., Suite 400
Washington, D.C. 20001
(202) 383-2500

The representatives of wind energy industry offers fact sheets on wind energy in California and around the world for grades 3-12.

Bullfrog Films, Inc.

P.O. Box 149
Oley, PA 19547
(800) 543-3764

This company offers a collection of educational films for purchase

or rent on energy and energy-related subjects. Their catalog is free.

Center For Renewable Energy and Sustainable Technology

777 North Capitol St., N.E., Suite 805

Washington, DC 20002

The Center operates an on-line, Internet clearinghouse on renewable energy and energy efficiency. Internet URL is <http://solstice.crest.org>

Council for Renewable Energy

1730 North Lynn St., Suite 602

Arlington, VA 22209

The Council is dedicated to educating the public on the impact, value, role and potential of renewable energy technologies.

Energy Efficiency and Renewable Energy Clearinghouse

P.O. Box 3048

Merrifield, VA 22116

(800) 363-3732

A U.S. Department of Energy-funded energy information service responding to public inquiries on the use of energy, renewable energy and energy efficiency.

Energy Source Education Council

5505 E. Carson St.

Lakewood, CA 90713

(310) 420-6814

A national, nonprofit partnership of industry, educational groups and government dedicated to providing quality energy education programs.

ERIC Clearing House for Science, Math and Environmental Education

Ohio State University

1929 Kenny Road

Columbus, OH 43210-1080

ERIC develops and maintains an education-related database that includes more than 850 items relating to energy education.

Geothermal Education Office

664 Hillary Drive

Tiburon, CA 94920

(800) 866-4GEO

A nonprofit and education organization serving teachers and students on geothermal energy.

Lawrence Hall of Science

University of California
Berkeley, CA 94720
(415) 642-5133

Some of the *GEMS (Great Explorations in Math and Science)* books focus on teaching energy information through math and science.

National Energy Foundation
5225 Wiley Post Way, Suite 170
Salt Lake City, UT 84116

A nonprofit educational organization providing educational resources and training services to educators.

NEED Project
1920 Association Drive, Suite 414
Reston, VA 22091

A national network of students, educators and leaders in government and industry dedicated to providing comprehensive energy programming.

Office of Scientific and Technical Information
U.S. Department of Energy
P.O. Box 62
Oak Ridge, TN 37831

The Center publishes a number of booklets and programs about energy.



Pete Wilson, Governor

California Energy Commission

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